

Name of Candidate	Summary of Expertise	Advisory Boards for Consideration
Initial Set of Names Submitted		
Merl Lindstrom Vice President of Technology Phillips 66	Merl has worked on the Research and Development (R&D)/Technology side of energy, looking at alternatives, renewables, and compliance strategies and approaches for air and water regulation for most all of his career. He currently runs our R&D facility and hosted Scott Pruitt for a two hour tour last week. His expertise and knowledge of the industry would be a true asset to the Agency.	Board of Scientific Counselors (BOSC) Clean Air Scientific Advisory Committee (CASAC) Chartered Science Advisory Board (SAB)
Cal Cooper Director, Emerging Technology Apache Corporation	Cal is an acknowledged industry leader and champion of leveraging science to solve problems. He has been at the nexus of technology development and policy for hydraulic fracturing and chemicals, water, methane emissions, climate change, CO2 capture and storage, and E & P geosciences. He has served on the boards of many domestic and international scientific initiatives. Cal has actually worked with EPA scientists to explain industry practices and technologies and influenced them to make changes to substantive regulatory issues based on pure scientific analysis, respectfully without controversy.	Board of Scientific Counselors (BOSC) Clean Air Scientific Advisory Committee (CASAC) Chartered Science Advisory Board (SAB)
Robert W Merritt Total (Retired)	Prior to Robert's retirement at the end of 2017, he was a manager in the geoscience domain for Elf and then Total for more than three decades. During his career, he has worked in petroleum industry settings throughout the US, onshore and off, from Alaska to the Gulf of Mexico and a dozen states in between. His focus has been on the application of information technology to improving efficiency in the exploration and production of oil and gas. He has frequently been called upon to work in collaboration with others in the industry to advance this goal.	Board of Scientific Counselors (BOSC) Air, Climate and Energy (first choice) Safe and Sustainable Water Resources (second choice) Charter Science Advisory Board (SAB) Drinking Water Committee (third choice) Environmental Economics Advisory Committee (fourth choice) Environmental Engineering Committee (fifth choice)

Second Set of Names Submitted		
<p>Frederic K. Wasden, Ph.D, P.E.</p> <p>iShale™ Project Manager</p> <p>Shell</p>	<p>A Chemical Engineer by training, Fred's 28 year career with Shell spans R&D, asset operations and development and HSE leadership with experiences spanning the globe and focusing on integrating new technologies to drive lower cost and lower impact energy development. His many leadership roles required him to balance financial, environmental and stakeholder issues in a wide array of regulatory settings. His extensive publication record, membership in industry committees, service to academia (instructing and advising) and non-profit R&D entities demonstrate the breadth of his influence within the energy sector.</p>	<p>Board of Scientific Counselors (BOSC) Air, Climate and Energy</p> <p>Charter Science Advisory Board (SAB) Environmental Economics Advisory Committee</p>
<p>Claudia J. Hackbarth, Ph.D.</p> <p>VP, Unconventional Technology and Shell TechWorks</p> <p>Shell</p>	<p>Claudia Hackbarth is a geoscientist whose 30+ years in the petroleum industry have included roughly equal parts of Upstream operational projects and R&D in service of faster, better, cheaper, and/or smaller footprint technologies for Exploration and Production. She is currently a VP in Shell's Technology organization with a portfolio including R&D for Water and for Shales, as well as Shell's innovation hub in Cambridge MA specializing in Systems Engineering and rapid prototyping. Prior to Shell, Claudia worked for a short time for the U.S. Nuclear Regulatory Commission and the U.S. Naval Research Laboratory. She recently joined the Visiting Committee for the Texas Bureau of Economic Geology (which serves as the state Geological Survey), in recognition of the scope of topics on which she can add value.</p>	<p>Board of Scientific Counselors (BOSC) Executive Committee Air, Climate, and Energy Subcommittee</p> <p>Charter Science Advisory Board (SAB) Environmental Engineering Advisory Committee</p>
<p>Allison L. Fisher, M.A.Sc.</p> <p>Senior Air Specialist; Air Quality Subject Matter Expert</p> <p>Shell</p>	<p>Allison Fisher is a senior air quality specialist, with over 16 years of direct experience in air quality impact assessment, dispersion modelling, air monitoring, emissions inventorying/reporting, climate/meteorology, data analyses, airshed design, air policy advocacy, and emerging air regulation development and implementation. She has extensive experience on science-based, multi-stakeholder regulation development committees, as well as technical air research projects. Allison is the Chair of</p>	<p>Clean Air Scientific Advisory Committee (CASAC)</p> <p>Board of Scientific Counselors (BOSC) Air, Climate, and Energy Subcommittee</p>

	<p>the Canadian Association of Petroleum Producers (CAPP) National Air Issues Committee, leading advocacy efforts on behalf of industry on emerging air policy and regulation. She has directly participated in programs with provincial and federal governments on initiatives such as the Air Quality Management System (AQMS) Multi-sectoral Air Pollutants Regulation (MSAPR) and the Canadian Ambient Air Quality Standards (CAAQS), and has successfully influenced outcomes of such programs through effective collaboration and respectful engagement. Allison also works with the Shell Global Expertise Team, unifying teams globally on technical air issues and advocacy efforts. She would bring deep air quality technical knowledge to the Agency, and would be positioned to offer valuable insight into the challenges and successes of air quality standards development and implementation at both local and national levels.</p>	
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